

## REMARKS

The present application includes pending claims 1-57, of which claims 13, 26, and 35-57 have been withdrawn from consideration. Claims 1-12, 14-25, and 27-34 have been rejected. By this Amendment, claims 1, 12, and 27 have been amended as set forth above to correct minor typographical errors. The Applicants respectfully submit that the pending claims define allowable subject matter.

Claims 1-5, 7, 8, 10, 12, 14-18, 20, 21, 23, 25, 27-30, and 33 have been rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,336,399 (“Kajisono”). Claims 6, 19, and 31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kajisono in view of Official Notice. Claims 9, 22, and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kajisono in view of United States Patent No. 4,166,086 (“Wright”). Claims 11, 24, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kajisono in view of United States Patent No. 3,836,130 (“Earhart”). The Applicants respectfully traverse these rejections at least for the reasons set forth previously during prosecution and hereafter.

The Applicants first turn to the rejection of claims 1-5, 7, 8, 10, 12, 14-18, 20, 21, 23, 25, 27-30, and 33 as being anticipated by Kajisono. “A claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *See* Manual of Patent Examining Procedure (MPEP) at 2131 (internal citation omitted). Further, “[t]he identical invention **must be shown in as complete detail** as it is contained... in the claim.” *See id.* (internal citation omitted). As discussed below, Kajisono does not expressly or inherently describe “every element as set forth” in the claims of the present application.

**I. Kajisono Discloses Apertures, Or Holes, But Not Agitation Members Outwardly Extending From A Drive Shaft**

Kajisono discloses an “apparatus for purifying and activating water.” Kajisono at Abstract. The apparatus includes a capsule secured to an end of a drive shaft. *See id.* The capsule includes a plurality of “small apertures.” *See id.* at abstract and column 3, lines 33-35 (“The capsule 32 includes a plurality of small apertures 31 in the circumferential wall thereof.”).

**A. An Aperture Is A Hole**

An “aperture” is, inter alia, an **opening or open space: HOLE.**” *See Webster’s Collegiate Dictionary*, 10<sup>th</sup> Ed. at page 53 (emphasis added). Because the aperture disclosed in Kajisono is an “opening,” or “hole,” it does not, by definition, outwardly extend from a shaft. Instead, Kajisono discloses a plurality of apertures, i.e., holes, formed in the capsule.

**B. Kajisono’s Apertures Are Configured For Microbubble Passage**

Kajisono discloses a system in which air bubbles pass through the apertures, i.e., holes. *See, e.g.*, Kajisono at column 1, lines 58-61 (“The drive shaft is provided, at the lower end thereof, with a capsule having a plurality of small apertures in the circumference thereof for ejecting air therefrom.”; and column 3, lines 59-60 (“Each aperture 31 is appropriately sized so as to produce very small air bubbles.”).

The resulting air bubbles remain suspended in the water for a long period of time.

Such air is discharged from the lower opening of the outer casing and the lower opening of the drive shaft and is distributed in water as a large number of small bubbles, i.e., micro-bubbles. The bubble (sic) are very small in

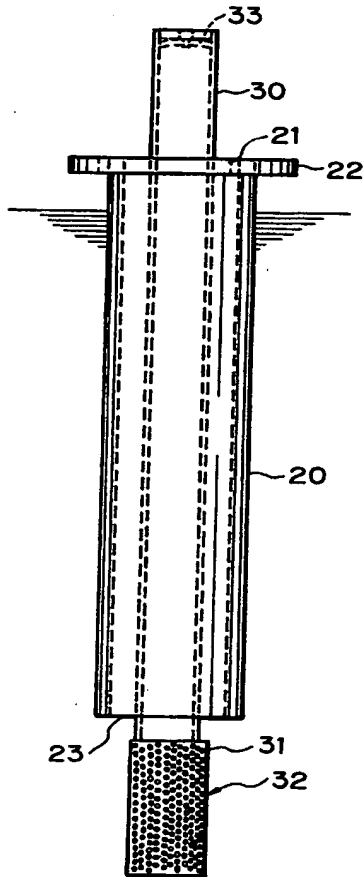
diameter so that they may be retained or suspended in water for a long period of time.

*Id.* at column 2, lines 26-32.

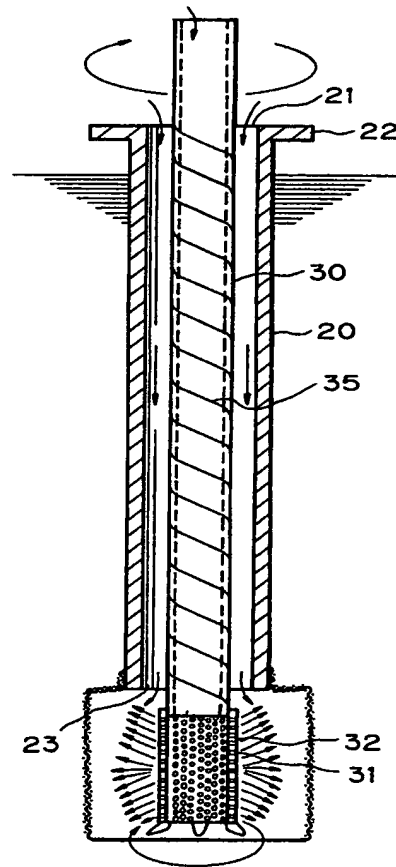
**C. Kajisono Does Not Discuss Or Show Outwardly-Extending Agitation Members**

Figures 5 and 7 of Kajisono, which are reproduced below, show a system in which a plurality of apertures 31, i.e., holes, are formed in the capsule 32.

**Fig. 5**



**Fig. 7**



As shown and discussed above, the apertures are **holes** formed through the capsule 32.

As shown in Figures 5 and 7, there are no agitation members or blades extending outwardly from the capsule or drive shaft. The arrows shown emanating from the

capsule in Figure 7 are clearly not attached to the capsule. Instead, these arrows are provided to show the paths of microbubbles exiting from the capsule.

In sum, Kajisono discloses a system for purifying and activating water that includes a plurality of apertures, i.e., holes, formed in a capsule. Kajisono, however, does not explicitly describe, or inherently disclose, an “agitator comprising at least one agitation member outwardly extending from a lateral surface of said distal end of said drive shaft,” as recited in claim 1 of the present application. Additionally, Kajisono does not explicitly describe, or inherently disclose, “a blade assembly extending outwardly from said drive shaft,” as recited in claim 14. Further, Kajisono does not explicitly describe, or inherently disclose, an “agitator having at least one blade outwardly extending from a lateral surface of said drive shaft,” as recited in claim 27 of the present application. Thus, at least for these reasons, Kajisono does not anticipate the pending claims of the present application.

**D. Kajisono Does Not Explicitly Describe, Or Inherently Disclose, A “Base Removably Interconnected To A Cover”**

Additionally, Kajisono does not explicitly describe, or inherently disclose, “a base removably interconnected to a cover,” as recited, for example, in claim 1. Kajisono discloses that “The base plate 10 is provided with a cover 16 for enclosing the motor 40 in a water resistant manner.” *Id.* at column 4, lines 5-6. Kajisono, however, does not explicitly describe, or inherently disclose, a “base removably interconnected to a cover.” Instead, Kajisono discloses a cover that includes an “inspection hole 80 for allowing an operator to view inside the cover.” *Id.* at column 4, lines 18-22. Thus, at least for this reason, Kajisono does not anticipate the pending claims of the present application.

## **II. Kajisono Does Not Anticipate Claims 2, 3, 15, 16, 28, And 29**

With respect to claims 2, 3, 15, 16, 28, and 29, the Applicants note that “to anticipate a claim, the reference must teach **every element of the claim.**” *See* Manual of Patent Examining Procedure (MPEP) at § 2131 at 2100-73. Kajisono does not explicitly describe, or inherently disclose, a “bird bath,” or a “livestock water trough,” as recited in these claims. Instead, Kajisono discloses the following:

The purification and activation apparatus of the invention may be used at a place, such as a contaminated sea, lake or pond, where purification of water should be performed in a floatingly supported manner. The apparatus is particularly suitable for use in a nursery or farm where fishes, shellfishes, or lavers are grown.

*Id.* at column 2, lines 63-68.

The apparatus of the invention may also be used in swimming pool, sewage treatment plants, rivers, lakes, lagoons or the like for purification of water. The apparatus of the invention may further be used in order to perform activation, purification and/or softening of drinking water, water for breweries, water in water reservoirs or the like.

*Id.* at column 6, lines 62-68. Kajisono, however, makes no mention of bird baths or livestock water troughs. Thus, at least for these reasons, the Applicants respectfully submit that claims 2, 3, 15, 16, 28, and 29 are not anticipated by Kajisono.

## **III. Kajisono Does Not Explicitly Describe, Or Inherently Disclose, A “Blade Assembly”**

With respect to claims 12, 14, and 25, Kajisono does not explicitly describe, or inherently disclose, a “blade assembly,” or a “blade extending from a lateral surface of a

drive shaft.” As discussed above, Kajisono teaches a cylindrical capsule 32 having a plurality of apertures, i.e., holes, formed therethrough. *See id.* at column 3, lines 31-36.

The Office Action cites Kajisono at column 4, lines 40-50 and Figure 7 to support this rejection. The cited passage of Kajisono states the following:

The drive shaft 30 and capsule 32 may be connected together, for example by means of screw connection. Preferably, the diameter of the capsule is large than that of the drive shaft. This is because, as will be explained in more detail below, the capsule may serve as a kind of propeller to cause negative pressure in the vicinity of the lower end of the outer casing when the drive shaft is rotated at a high speed. Accordingly, it is preferable to provide impellers, as shown in FIG. 7, so as to cause increased negative pressure.

*Id.* at column 4, lines 40-50.

Neither the passage above, nor Figure 7, however, teach, nor suggest, blades. In fact, Kajisono discusses Figure 7 as follows:

FIG. 7 is a side view of another embodiment of the invention, illustrating an outer casing and drive shaft employed therein.

Referring to FIG. 7, the drive shaft 30 is provided, in the circumferential surface thereof, with a groove 35 extending helically around the circumferential surface. Provision of the helical groove 35 may increase frictional force between the drive shaft and air to be drawn into the space between the drive shaft and the outer casing. This may result increased amount of static electricity in air to be drawn, thereby facilitating activation of water.

*Id.* at column 6, lines 17-28. As described in detail above, Kajisono discloses apertures 31, i.e., holes, formed in the capsule. Kajisono does not, however, show or discuss “at least one blade extending from a later surface of a drive shaft,” or a “blade assembly” in general with respect to Figure 7. In short, Kajisono simply does not explicitly describe, or inherently disclose, these limitations. As such, the Applicants respectfully submit that Kajisono does not anticipate claims 12, 14 and 25 of the present application, at least for this reason.

#### **IV. Conclusion**

The Applicants respectfully submit that the pending claims of the present application should be in condition for allowance at least for the reasons discussed above, and request reconsideration of the claim rejections. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone listed below. Please charge any necessary fees or credit any overpayment to Account No. 13-0017.

Respectfully submitted,

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